



Paving the Way Forward for Rural Finance
An International Conference on Best Practices

Case Study

Surveys of Delivery Systems in Rural Finance

**Business Transactions for Smallholder Farmers
and Entrepreneurs via DRUMNET**

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SUMMARY

Over the past thirty years Microfinance has proven to be an effective development and business tool for reaching the poor, primarily informal entrepreneurs in urban and peri-urban centers. A number of institutions have demonstrated that the poor are bankable and credit worthy, however important challenges now face the industry. Microfinance works, but not at the scale or depth originally envisaged, nor on a basis which can be commercially viable without sacrificing the poor in the process. The private sector is not sufficiently engaged, the commercial banks remain on the periphery and the international and local capital markets remain untapped due to lack of standards and instruments to get involved. Innovation has been sadly limited.

Agriculture, the dominant sector in most of Africa, and rural finance have been largely ignored over the past decade as Microfinance spread its wings. Credit based programs have grown out of sync with the importance of innovating savings devices which could be linked to commercial banks. The donors have played a key and important role in the process, however, the double-edged danger of dependency and high transaction costs threaten many institutions' survival, and more importantly, the livelihoods of the clients they serve.

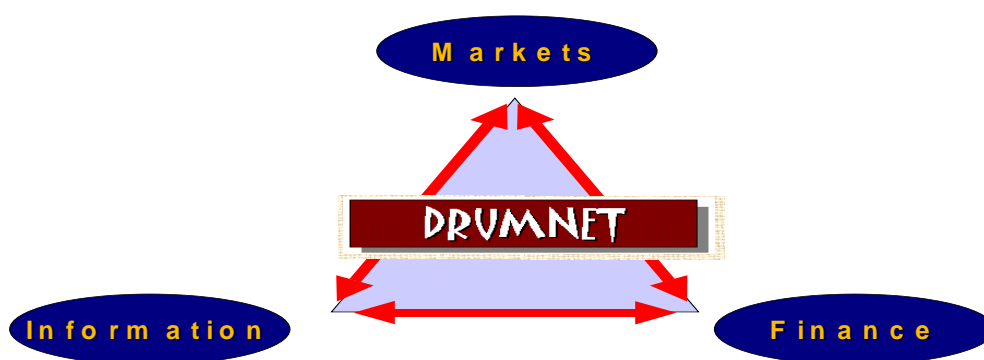
PRIDE AFRICA (PA) was an early pioneer in successfully introducing the group solidarity model in East and Southern Africa through a network of over 60 branches in 5 countries serving 110,000 plus clients. Now managed by PRIDE Management Services Ltd., PA has taken on a Research and Development role, concentrating on developing new ideas, products and platforms to mainstream the poor consistent with its mission of creating a commercially sustainable financial and information services network.. The strategic focus is on three key areas:

- 1. Developing a commercially viable savings led financial model for smallholder farmers that can be widely shared and replicated in partnership with commercial banks, financial intermediaries and the private sector.*
- 2. A commercial ICT based information exchange platform to promote financial and non-financial transactions linking micro entrepreneurs, smallholder farmers and the formal sector.*
- 3. Working as part of a global chaordic partnership to develop standards and technology to take Microfinance to scale and bring the poor into the formal markets.*

1.0 Program Description

- 1.1** The drum is a powerful tool in information dissemination, marketing and advertising as well as a medium for art and entertainment in the traditional African setting. The untold success story of the African drum provides the context for the proposed DrumNet. DrumNet is an integration of tradition and modernity. It seeks to explore the potential synergy of the African drum with the more efficient modern Information and Communication Technologies (ICT).

**b u s i n e s s t r a n s a c t i o n s f o r
s m a l l h o l d e r f a r m e r s a n d e n t r e p r e n e u r s**



- 1.2 Several studies/experiments have been conducted around the world pointing to the fact that access to credit alone by micro and small enterprises (SMEs) in the developing countries may not suffice to lift them out of poverty unless it is coupled with leapfrogging opportunities that take them to the local, regional and the world market place via the provision of affordable and interactive information/communication channels. DrumNet attempts to do just this in a manner that affords scale and replication.
- 1.3 Building on research previously carried out on information needs through its Microfinance network, PRIDE AFRICA developed the DrumNet concept, an innovative means of information exchange using the latest information and communication technologies (ICTs) utilizing a central hub serving Info-Kiosks operated by ‘Info-Brokers’.
- 1.4 Through a sequential “learning by doing” implementation process involving, PRIDE AFRICA has designed a package of procedures, systems, standards and software that provide a total package of value added services addressing the grassroots needs of farmers from financing to information, marketing to savings, all sourced from one platform (info-kiosks) located in close proximity to farms and markets.
- 1.5 The unique feature of the project is its outreach methodology - reaching widely dispersed rural clients through co-operatives and formation of informal self-help groups. In this regard, DrumNet works closely with SACCOs and marketing cooperatives through their umbrella organizations like the Kenya Union of Savings and Credit Cooperative (KUSCCO) and Kenya National Farmers Bureau (KENFAB). The associated SACCOs and Co-ops will play a crucial role in the horizontal expansion of the program, by considerably increasing the number of bottom-of-the-pyramid clients that benefit from DrumNet.
- 1.6 Inspired by the efficacy of the traditional African Drum in information dissemination, DrumNet is leveraging its strengths in microfinance together with modern Information and Communication Technologies (ICT) to provide a one-stop service-point for commercial information, market making and bank linkage

services. It combines the Internet and web-technology with its knowledge of local markets, co-operative societies, microfinance organizations and private sector.

- 1.7 The overall objective of the program is to provide poor farmers with improved access to new agricultural technology, financial and non-financial information and a bridge to the formal financial system to grow and diversify their businesses, generate more income and employment as well as creating forward-backward linkages. The model is being developed in a generic *plug and play* fashion such that it can be widely and rapidly replicated through any participating cooperative society, microfinance institution or bank.

2.0 The Mission

- 2.1 The mission of PRIDE AFRICA is to create a commercially sustainable financial and information services network for small-scale entrepreneurs and farmers to increase incomes and employment and to stimulate growth in Africa. The current objective is to promote small-scale farming and rural enterprise growth by providing an information platform to smallholder farmers and agribusinesses, which enhances their profitability and competitiveness.
- 2.2 PRIDE commenced operations in Kenya in 1988 originally as a microfinance institution before its metamorphosis to a Research and Development company in 2000. Its current strategic focus is on three key areas:
 - Developing a commercially viable savings led financial model for smallholder farmers that can be widely shared and replicated in partnership with commercial banks, financial intermediaries and the private sector.
 - A commercial ICT based information exchange platform to promote financial and non-financial transactions linking micro entrepreneurs, smallholder farmers and the formal sector.
 - Marketing services supporting brokerage activities and farm inputs/produce trading.

3.0 Executing Partners/Donors

- 3.1 Having realized that the model through which PRIDE AFRICA has successfully provided short-term working capital loans to urban micro entrepreneurs is not suited to the peculiarities of crop financing, PRIDE AFRICA entered into an agreement with a Princeton/Harvard University based Research Team to help develop a new scalable microfinance model appropriate for the agriculture sector.
- 3.2 The researchers have extensive experience in researching, implementing and evaluating microfinance and farmer training projects in Latin America, Africa and Asia. The Institute of Development Studies of the University of Nairobi is also participating with survey teams at the local level.

3.3 Through an agreement entered into in early 2001, Monsanto (a USA based agro-chemical Company) and PRIDE AFRICA agreed to fuse their respective strengths and expertise to collaborate on a pilot project in Kirinyaga District, a rural agricultural area of Kenya. While Monsanto is providing farmers with Conservation Tillage¹ technology that has significantly increased yields, PRIDE AFRICA is providing information, marketing and finance linkages that deliver innovative services and seasonal microcredit without which smallholder farmers would be unable to purchase necessary inputs for farm production. A leading Canadian research firm, International Development and Research Center (IDRC) has recognized the importance of the DrumNet approach and has supported the program with a grant contribution of US\$160,000 supplemented by Monsanto and counterparty funding from Princeton/Harvard team.

4.0 Delivery Technology/Network Mechanism

4.1 It is not the intention of DrumNet to impose a sophisticated system not easily understood or inappropriate to the farmers. Rather it uses accessible user-friendly technology facilitated by info-brokers in much the same fashion the traditional drummer relays information to his audience. The Info-Kiosk is a simple, stand-alone facility catering to clients requiring financial, marketing and technical information to generate value-adding transactions.

4.2 At the base is the Info-Kiosk (IK), which is strategically located at close proximity to the farmers and perform the following functions:

- Collect and build a database of farmers and agro-allied enterprises in its area of operation
- Collate client data, credit and service ratings regarding clients' preferences, products/services etc.
- Collect relevant data from surveys, market research, impact assessment and other avenues
- Conduct data searches and provide information/reports to clients as requested
- Relay data/information collected into DrumNet's central hub and transmit relevant information from the central hub to clients
- Facilitate the sending of messages between clients as well as clients and third parties e.g. suppliers, large industries
- Create opportunities for e-commerce with small and large private sector organizations

DrumNet Information Processing System

DrumNet - the Information Services Network

¹ Conservation Tillage is a technique by which crops such as maize, cotton, etc are grown without soil preparation/ inversion but by using improved seeds, herbicides and insecticides. It does not involve the use of ploughs and hoes, hence the term 'planting without ploughing'.



**DrumBeat
Newsletter**



Database

- 4.3 The DrumNet pilot is starting with three kiosks, one located in Kerugoya, and two in Nairobi at Nacico-a transportation hub and wholesale market and Parklands, the Information center.. Each kiosk is managed by an info-broker who collects processes and disseminates information and assists in the formation of farmer groups and market channels. As a membership-based initiative, clients are provided with membership cards with assigned numbers and email addresses that uniquely identify them on the network and allow them access and to transact via the IK. The IKs are linked to the central hub by telephone, fax, e-mail or Internet; whichever is feasible.
- 4.4 **The Central Hub** acts as the main server and database and performs the following functions:
- Serves as an access centre or node to which individual IKs are connected
 - Stores data/information from the connecting IKs
 - Transmits data/information to any IKs wherever located
 - Provides an effective and efficient interconnection and synchronization between the two levels of the network
- 4.5 The central server hub is connected to the web and hosts the DrumNet portal. Information is distributed via DrumBeat, a targeted web based newsletter, with clients' classified listings designed to act as a communication medium and focal point for farmers to advertise their products, trade and exchange valuable information at Internet level.

- 4.6 Systems for capturing and classifying client profiles, credit ratings and market data will be developed and continuously updated. Demand data will be compiled from farmers' information needs and surveys conducted at branches where DrumNet info brokers are posted. Existing data, in addition to a baseline survey, and client information will give the demand profile. The pricing for the information services will be based on the volume and type of client requests both on a local level through the info broker and on a wider national (and regional) basis through the hub.
- 4.7 To stimulate demand and increase outreach and therefore profits and sustainability, technologies of wide appeal are being used. With the rapid and widespread use of mobile phones in Kenya, SMS, or text messaging services, is being adapted for low cost data transfer and capture. DrumNet relies on Internet Technology as the key to establishing a regional network. Client communication and transactions will be facilitated with e-mail addresses, for example, mr.xyz@Branch.DrumNet.org to communicate over the network.

5.0 DrumNet Solutions/Services

- 5.1 DrumNet combines the promise and potential of microfinance (including bank-linked savings), information dissemination and on-line transactions including commodity/farm produce brokerage services among others. Essentially, DrumNet's proposed intervention cover three major areas, namely:

(A) Information Services

Agricultural Commodities Information: DrumNet Info-Brokers will receive and provide public and private information sources on relevant agricultural commodities including market prices, crop availability, pest control, weather, livestock, inputs (herbicides, fertilizers, etc) as well as information on technology, financial services and market channels relevant to farmers, agro-allied entrepreneurs, exporters, processors and other stakeholders.

Transportation Information/Opportunities: Tracking movement of trucks/buses to various destinations matching producers with markets. Ratings will be developed to score service satisfaction and build a more reliable and consistent flow of goods. As transport and commodity flows are analysed between service points, costs can be reduced by eliminating costly no load return trips.

Market Reports: Information Brokers will be trained to gather and disseminate pertinent information on local markets and conditions. Future plans include creating GIS databases to perfect and optimise information capture and exchange on markets and demographics.

Targeted Research Requests: Market research will be carried out on a fee basis in response to specific requests from DrumNet Corporate Clients or institutions interested in targeted market information.

Electronic Bulletins/Newsletters: DrumNet query and sampling techniques will be developed targeting clients in specific sectors in selected geographic locations with verifiable credit information and financial profiles. From this data, targeted newsletters (DrumBeat) will be sent to the info broker network aiming at these clients and client groups.

Portal/Web Page Hosting: The primary purpose of the DrumNet website will be to act as a portal through which general members of the public will get information on the functions and services of DrumNet and registered members will get relevant information pertaining to their individual and group needs.

Peer-to-Peer Information Exchange: Clients have shown a lot of interest in a peer-to-peer client information exchange so that they can exploit the potential and synergy of trading with each other.

Advertising: From the client-classified database developed from the branch network, Info-broker will promote advertising to a highly targeted and creditworthy clientele. From past research by Steadman Associates, a Nairobi based market research firm, there is a strong demand for this type of marketing service by large-scale firms both for sales and market intelligence. This can eventually build into an important revenue stream.

(B) Marketing Services

Client/Service Ratings: DrumNet is developing an appropriate e-commerce model that will facilitate value added information exchange and promote cost effective repeat transactions. For this purpose, DrumNet will rate its clients' financial and service history to assure quality control and consistency. The principle is to have rating standards that continuously and progressively establish the status of participating farmers in terms of credit, savings and produce quality performances. Better ratings will mean better business

Virtual Wholesaling: Virtual wholesaling or consolidating the purchasing power of small farmers groups will enable them to take advantage of bulk-purchase discounts and consolidated delivery. This can be achieved both for buying and selling of goods and services.

Disintermediation (reducing the role of the middlemen): One of the DrumNet's key goals is to shorten and streamline the transaction chain between farmer and market. Farm clients and suppliers need to be empowered to effectively compete with the middlemen, who add no value to products exploiting information gaps, buying goods cheaply and reselling them at disproportionate profit margins.

The virtual marketplace: DrumNet will provide a virtual marketplace for clients to view, select, and pay for goods and services and provide a medium by which farmer-members can market their goods and services to both a local and global audience. The info-kiosk is designed to store, monitor and update client information, and track client purchasing and sales habits.

(C) Linkage Banking

- 5.2 Despite research evidence that small farmers do save and are able and willing to pay market interest rates on credit facilities, the absence of or weak linkages between small farm households and financial service providers remain a key constraint in improving the productivity and livelihood of small-scale farmers. DrumNet aims to strengthen or provide the missing link between its farmer members and formal financial institutions; by acting as a facilitator or financial intermediary whose main role is to cluster and coach groups of farmers, facilitate information flow between farmers and banks, help in appraisal and recovery of loans and mobilize savings linked with participating financial institutions.
- 5.3 DrumNet acts purely as a service provider taking care of many interactions between the farmers and banks, building trust and confidence between the parties; but is neither directly involved in financial transactions nor providing direct financial services. Banks will pay performance-based fees to DrumNet factored into the interest rates to cover its operational costs. The fees payable shall be based on loans granted and fully recovered.
- 5.4 The upside of this arrangement is that financial institutions, which do not have the structures or appropriate staff (trained agricultural credit officers) to handle rural finance, could still do business with smallholders through the virtual bridge provided by DrumNet. This arrangement will provide banks with opportunity for growth without crowding their banking halls with the type of clients they are not equipped to handle. The DrumNet linkage service will increase outreach and loan volumes, improve recovery rates and mobilize additional savings all at reduced transaction costs to the banks.
- 5.5 The central focus of DrumNet's financial service is savings mobilization with emphasis on linking savings performance with access to credit facilities in much the same way as debit cards are used in developing countries. Member groups are expected to save for a given period (say 3-6 months) depending on the bank's policy after which they are entitled to maximum seasonal crop loans of 2-3 times the amount saved. The loans are granted at the participating bank's interest rates and repayments are made at maximum of two harvest seasons depending on the crop. Savings are expected to continue during the loan period. Aside from serving as cash collateral, the savings will assist farmers to build their own capital for seasonal planting needs and to set up micro agribusinesses to enhance and diversify their incomes.
- 5.6 In the second phase of the project, DrumNet plans to put in place 'comfort mechanisms' that will dramatically change the perception of mainstream financial institutions have of small farmer clients from that of "high risk" to one of "opportunity for growth". Risk assessment tools will be introduced for smallholder farmers including credit rating and credit scoring. The combined effect of these complementary techniques is to present financial institutions with a practical and sustainable alternative to assessing the creditworthiness of farmers using their credit history and cash flows rather than demonstrated

collaterals. With this risk-minimizing infrastructure in place, banks should be able to waive or reduce tangible collateral to 0-50% of normal requirement.

- 5.7 In this regard, DrumNet recognizes the significant potential that SACCOs and marketing cooperatives represent in realizing its objective and therefore works closely with them through their umbrella organizations like Kenya Union of savings and Credit Cooperative (KUSCCO) and Kenya National Farmers Bureau (KENFAB). By developing products and a platform which can be easily adapted to existing institutions and networks, replication and economies of scale will be more rapidly achieved.

6.0 Social Impact

- 6.1 DrumNet is being designed as a shared access platform linking farmers, credit unions, cooperatives, technology partners, agro-based corporate organizations, participating banks/MFIs and investors/donors. Membership includes individuals, corporate organizations and cooperatives. Strict membership recruitment/registration procedures (rules and regulations) are put in place together with a vetting system to protect against suspect membership and to ensure discipline, trust and loyalty. This is strengthened with a code of conduct including a deterrent/penalty system as well as members orientation/training. The target clientele includes:

- Individual/Group Smallholder farmers
- SACCOs
- Corporate Suppliers of inputs
- Corporate Produce Buyers/Users
- Transporters
- Outgrowers

6.2 Farmers/Cooperatives

- Farmer members will have greater access to diversified non-financial services including information services for enlightened decision-making, virtual wholesaling/bulk purchasing at discounted prices, group-buying schemes for common inputs, peer to peer transactions, business linkages and opportunities for e-commerce (trading/brokerage services).
- Farmers can be connected to the formal financial system with increased financial resources to grow and diversify their businesses, generate more income and employment as well as creating forward-backward linkages and opportunities.
- Over time it will also provide farmers with diversified financial services including loan facilities, and safe, convenient saving services linked to commercial banks and leveraged through credit ratings and scoring.
- Farmers will acquire better knowledge of how to manage loans, make use of track records/credit history and build confidence to operate at the formal level.

6.3 Participating Commercial Banks/MFIs

- New market opportunities and virtual access to new customers particularly in mobilizing rural savings
- Commercial banks will have safe linkages with farmers giving them greater sustainable reach to farmers at significantly reduced transaction costs.
- The institutionalization of such mechanisms as smallholder farmers' credit rating, referencing and credit scoring will provide mainstream financial institutions with practical and sustainable alternatives to assessing the creditworthiness of farmers using their credit history and cash flows rather than demonstrated collaterals. With this risk-minimizing infrastructure in place, banks will be able to do increasing business with rural clients thereby affording banks opportunity for growth.
- Commercial banks will have opportunity to forge a productive alliance with DrumNet (which has the expertise, flexibility, proximity and personal knowledge of the farmer members they serve) and be able to expand their loan portfolio
- The commercial banks are afforded the opportunity of dealing on wholesale basis with virtual clients thus providing financial services to farmers without having their banking halls overwhelmed with thousands of clients or the need to reinvest in expensive physical infrastructure.

7.0 Gender Consideration: The majority of Kenyan farmers and a good number of agribusinesses are owned and operated by women and consequently make up the majority of DrumNet clientele. Women's lack of adequate access to technology and information is well-documented internationally and nationally. This program is collecting gender disaggregated data to track the information needs particular to women's enterprises and make a concerted effort to respond to them in a manner that can be replicated throughout the region.

8.0 Management Capacity/Capacity Building

8.1 DrumNet has benefited immensely from PRIDE AFRICA's 10 year hands-on experience in microfinance and the lessons learned from its country programmes in Kenya, Uganda, Tanzania, Zambia and Malawi. It is also benefiting from the extensive and worldwide experience brought in by the researchers from Princeton, Harvard and Nairobi Universities. The DrumNet core team comprises individuals with in-depth insight and experience in telecenter design and installation as well as microfinance and banking to drive the program to its full potential. The team is assisted by info-brokers, technical and other administrative staff. External resources of service and content providers supplement the efforts of the established team. Additional hands will be brought on board in tandem with the rollout and network expansion.

- 8.2 One of the key tasks of the project is to build capacity in PRIDE AFRICA in designing and undertaking monitoring and evaluation of current and proposed programs so that its services can be more client responsive. This is vital to rigorous analysis of ICT applications' impact on development. There is a real lack of expertise in Africa for such R & D and evaluation capacity with regard to the role and effect of ICTs. The ultimate output is the capacity to develop an information provision model for commercial application in the PRIDE network in Tanzania, Uganda, Zambia and Malawi as well as in the Cooperative networks in Africa.
- 8.3 At the level of building informatics expertise, DrumNet will not only train its info-brokers on computer applications and information brokerage but also prepare them as trainers. With e-commerce as the focal point, info-brokers will impart their clients with skills on how to use ICT to grow their businesses and raise their incomes. At the regional level, DrumNet shall provide advisory and consultancy services to its members to make them effective entrepreneurs and managers.

9.0 Business Model and Sustainability

- 9.1 Although DrumNet has a business objective, it will maintain a not for-profit structure during this 18 month period of incubation after which it will be spun off as a full commercial venture. The long-term perspective is to leverage private sector capital by licensing DrumNet to credible and willing private sector players. Each licensee will be free to develop additional products/services. DrumNet, however, will continue to aggressively market its products/services around the region to cooperatives, banks, private sector institutions and individuals with flair/experience in sales, marketing and business development.
- 9.2 Although DrumNet is a project of PRIDE AFRICA, a not for profit organisation, it will be run strictly on commercial principles. It has been designed to be self-sustainable both in financial and operational terms. Enough revenue must be generated to cover costs and retained earnings, which shall be re-invested to upgrade existing IKs and open new ones so as to rapidly reach scale. Moreover, the operating model will ensure that value is added at each and every level of operation and that costs do not exceed the ability and willingness of clients to pay.
- 9.4 Most of DrumNet's income will derive from a percentage of each transaction successfully completed between seller and buyer. Therefore building the client financial relationship and credit rating will be the main initial activity to establish a transaction basis. Key to DrumNet's success will be the frequency of transactions and the quality of its database. DrumNet's business is to add value to others business up and down the chain. The IB will target all potential clients, businesses and opportunities capable of building her database and transaction pool. Revenues are expected to come in from the following sources:
- Annual/monthly subscription/membership fees

- Commission on brokerage services/commodity trading
- Client advertising
- Franchise Licenses, fees and royalties
- Miscellaneous charges for specific surveys, local content, training, etc

10.0 Lessons/Challenges

- 10.1 The need for appropriate client targeted information and non-financial services have been evident within the PRIDE network for many years. Several focus group studies have been conducted with PRIDE clients in Kenya, Tanzania and Uganda all pointing to the need for appropriate and relevant information. The experience has revealed that access to appropriate information is of prime importance and for which clients are willing to pay. The challenge is to provide a value added information exchange on a commercially profitable basis to an economically diverse and geographically dispersed population.
- 10.2 DrumNet has posed a great deal of challenges. The initial thought at the proposal stage was that PRIDE AFRICA would merely transfer existing Microcredit technology/services wholesale to the rural area as it has in other areas in the region. This proved not to be feasible or acceptable to the more agriculturally based clients. The standard PRIDE model through which PRIDE AFRICA has provided short-term working capital loans to urban traders, street hawkers and other micro enterprises failed to address the peculiarities of crop financing. The conventional weekly mandatory saving deposits that serve as collateral substitutes in urban microfinance have little resonance with rural farmers forcing PRIDE AFRICA and Monsanto to go back to the drawing board. After undertaking rigorous market survey/appraisal, careful planning and sequential implementation involving “learning by doing”, PRIDE AFRICA has developed a bundle of procedures, systems, standards and software that infuse agricultural lending methodologies to a new microfinance model.
- 10.3 Poor farmers face particular challenges in increasing their income levels. The nature of their income flows is cyclical, often leading to “feast & famine” times during the year. This makes lumpy purchases or investments in agricultural technology, land, or even school fees, difficult, if not impossible. DrumNet has proven that effective credit and savings instruments could overcome this problem and hence help farmers invest more for the future and raise their future income. PRIDE AFRICA experience shows that farmers are net savers. However, information is also a critical component. Better information on available yield-improving technologies, profitability of alternative crops and market prices can help farmers earn more money.
- 10.3 Other key constraints encountered by the program are low teledensity; collapsing infrastructure and prohibitive dial-up Internet costs that have conspired to make affordability, cost recovery and e-business most challenging. Yet the globalization of financial and non-financial services and the integration of international markets have made e-commerce not only a reality but also a necessity if African countries are to join the club of the

world's emerging markets. DrumNet is building a viable foundation for e-commerce in Africa and will ultimately become an on-line agricultural marketplace in the foreseeable future. It is strongly believed that emerging challenges will be surmounted as DrumNet moves along the learning curve.

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For more information, or collaboration

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